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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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44909	7590	04/20/2006	EXAMINER	
WOLF, BLOCK, SCHORR & SOLIS-COHEN LLP			PROCTOR, JASON SCOTT	
250 PARK AVENUE			ART UNIT	
NEW YORK, NY 10177			PAPER NUMBER	
			2123	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/914,487	SHKOLNIK, SHLOMO	
	Examiner	Art Unit	
	Jason Proctor	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-26, 28-43 and 45-85 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-26, 28-43 and 45-85 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 23-78 were rejected in Office Action of 13 September 2005.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 January 2006 has been entered.

Applicants were granted a telephonic interview on 5 April 2006. Applicants submitted a supplemental response that was received by facsimile on 10 April 2006, including a listing of the claims. This Office Action is in regard to that supplemental response.

Claims 23, 28, 32, 33, 38, 45, 47, 50, 55, 56, 59, 66, 71, 72, 74, 77 have been amended, claims 27 and 44 have been cancelled, and claims 79-85 are new. Claims 23-26, 28-43, and 45-85 are pending in this application.

Claims 23-26, 28-43, and 45-85 have been rejected.

Claim Rejections - 35 USC § 101

35 U.S.C. § 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 45-59 and 78 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106(II)(A) states:

The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (*Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); *In re Ziegler*, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.

Claim 45 recites "a method of labeling major elements of an aircraft" that results in "assigning each of the major elements with a code which is unique to each occurrence of the element in the aircraft, responsive to the system to which the element belongs. Claim 45 fails to produce a useful, concrete, and tangible result. "Assigning" codes is not limited to "actually marking aircraft components with identifying indicia" but is open to an interpretation wherein codes are abstractly assigned and therefore does not produce a tangible result.

2. Claims 50-52 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Claim 50 recites "a method of referencing workers on an aircraft" that results in "assigning worker codes." Claim 50 fails under the same analysis shown above for claim 45. Claim 50 fails to produce a useful, concrete, and tangible result.

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3. Claims 72-74 and 41-42 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Claim 72 recites “a method of providing information between workers designing a vehicle” that results in “contacting a worker in charge of the element based on information found in the search.” Claim 72 fails to produce a useful, concrete, and tangible result. “Contacting a worker” is not limited to “actually providing a tangible piece of information to a worker” but is open to an interpretation including verbal communication, visual cues, etc., and therefore does not produce in a tangible result.

4. Claims 82-85 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Claim 82 recites “a method of designing a vehicle” that results in “contacting workers.” Claim 82 fails under the same analysis shown above for claim 72. Claim 82 fails to produce a useful, concrete, and tangible result.

Claims rejected but not specifically mentioned stand rejected by virtue of their dependence. To expedite a complete examination of the instant application the claims rejected under 35 U.S.C. § 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 23-26, 28-31, 75-76, and 79-81 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 23 has been amended to read “a method of forming a public vehicle design index” which was not described by the specification as filed. Claim 23 has been amended to read “including private information restricted to viewing by a limited group of workers assigned to one aspect of the vehicle” which was not described by the specification as filed. In making this amendment, Applicants state:

The amendments to claim 23 generally find support in the claim itself and on page 3, lines 16-19.

This portion of the specification reads as follows:

Optionally, the database does not include drawings and diagrams which require large amounts of storage and are usually of little interest to workers not in the department in charge of elements described by the drawings.

This portion of the specification does not describe or support the amendments to claim 23. This portion of the specification is not directed to “a public vehicle design index” or “private information.” These limitations are regarded as new matter and must be cancelled from the claims.

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 23-26, 28-31, 75-76, and 79-81 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites the phrase “private information restricted to viewing by a limited group of workers assigned to one aspect of the vehicle” which renders the claim vague and indefinite. It is unclear if this language is an attempt to define the phrase “private information,” and if so, what the precise definition for that phrase would be in the claims. It is unclear what constitutes “a limited group of workers.” It is unclear what constitutes “one aspect of the vehicle.” It is unclear if this language is an attempt to exclude workers that are assigned to more than one “aspect of the vehicle.”

Claim 23 recites the phrase “wherein storing the information in the index comprises storing only information which is authorized for viewing by workers of the company from a plurality of departments” which renders the claim vague and indefinite. This limitation does not appear to correspond to the previously recited “a limited group of workers assigned to one aspect of the vehicle” and it is unknown whether these phrases should be interpreted congruently. It is generally unknown what specific limitation is defined by this phrase. If a company has “a plurality of departments,” then it would stand to reason that the company has “workers of the company from a plurality of departments.” This phrase therefore appears to be directed to

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“information which is authorized for viewing by employees of a company, wherein the company has departments.” It is unknown if this interpretation is correct.

The language of claim 23 significantly interferes with any attempt at making a proper patentability analysis of the invention.

7. Claim 28 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28 recites “wherein gathering the information comprises gathering from tools which carry information restricted from viewing by at least one group of workers within the company designing the vehicle” which renders the claim vague and indefinite. It is unclear if this limitation means gathering information which is restricted or gathering information which is not restricted, but from tools which also carry information which is restricted. In either interpretation, the claim appears to recite an inconsequential step because claim 23, from which claim 28 depends, recites “storing only information which is authorized for viewing by workers of the company from a plurality of departments.” Therefore, if claim 28 means “gathering restricted information,” such information is clearly disregarded by the recited steps of claim 23. If claim 28 means “gathering unrestricted information from tools which also carry restricted information,” such a step is indistinguishable from the steps of claim 23.

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8. Claim 29 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A dependent claim must be further limiting in order to be proper. Claim 23 recites “a method of forming a public vehicle design index” comprising “storing the information in the index.” Claim 29 recites “storing the information in a database.” The relationship between the database and the index is vague. Claim 29 appears to be an improper dependent claim for failing to further limit the parent claim. Clarification is required.

9. Claims 32-40, 43, and 53-71 rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 32 recites “providing a plurality of different types of computerized tools, suitable for performing specific design tasks of the vehicle,” which renders the claim vague and indefinite. It is unknown how to distinguish a computerized tool based on whether it is “suitable for performing specific design tasks of the vehicle.” The concept of “design tasks” is itself extremely broad. A “design task” includes adding up the cost of the parts. Therefore, it appears that any “computerized” adding machine meets the limitation that it is “suitable for performing specific design tasks of the vehicle.” It is entirely unknown if this interpretation is correct. Applicants’ are respectfully requested to point to specific portions of the specification which clearly and unambiguously define the claim terminology including “specific design tasks” and “suitable for performing.”

Claim 32 recites “the database does not include sufficient information for design tasks of the vehicle performed using the computerized tools” which renders the claim vague and indefinite. It is unknown how to assess the prior art to determine whether it depicts “insufficient information for design tasks.” This language is vague, ambiguous, and precludes a proper analysis of the patentability of the invention. As stated above, the term “design task” is extremely broad and open to speculative interpretation. Compounding the indefiniteness is the vague and abstract phrase “sufficient information.” How can the Examiner look to the prior art to determine if it shows “sufficient information” to perform some broadly recited and undefined “design task”?

Claim 32 recites “but serves as a directory for workers designing the vehicle” which renders the claim vague and indefinite. This language appears to define the invention in terms of how it is used, i.e. a use limitation. This type of language does not define the invention.

Claim 32 recites “search the database, by a first worker, for information on one or more of the elements” which renders the claim vague and indefinite. The phrase “by a worker” appears to define the invention in terms of who is performing the method. In contrast, if the method were performed by a volunteer, such a performance would apparently be beyond the scope of the invention. This limitation does not define the invention. A method is defined in terms of the steps performed to carry out the invention, not in terms of who performs the method. Please see MPEP 2111-2114.

Claim 32 recites “contacting, by the first worker, a second worker, who is in charge of the element, based on information found in the search” which renders the claim vague and indefinite. In addition to the problems noted above related to “a first worker,” it is unknown

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what the prior art must show to teach this limitation. To have taught the previously recited limitations, the prior art must show “workers designing a vehicle.” Being coworkers, it simply stands to reason that they have “contact” as an ordinary function of their job. This claim language appears to be an attempt to patent “searching a database” and subsequently greeting a particular coworker. The Examiner respectfully suggests that Applicants consider claim language that more appropriately defines the invention.

10. Claim 40 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 40 recites “an indication of a relative function of the element with the system” which renders the claim vague and indefinite. The term “a relative function” is neither known in the art nor defined in the application. It is unknown what constitutes “an indication of a relative function.”

11. Claims 45-49 and 78 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 45 recites “selecting substantially all of the elements of the vehicle that are handled by a plurality of personnel from different departments, to serve as major elements that represent the vehicle” which renders the claim vague and indefinite. The phrase “the vehicle” lacks antecedent basis. The phrase “substantially all” is vague and provides no indication as to

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how much of the “elements of the vehicle” must be selected in order to teach or infringe upon the claim. The phrase “elements of the vehicle” is vague and provides no indication as to what constitutes an “element.” This language appears to exclude any “elements of the vehicle” that are handled by “a plurality of personnel from the same department.” It is unclear whether this language is intended to exclude “elements of the vehicle” that are handled by “one person each from a plurality of departments.” This type of claim language is so problematic that it precludes a proper analysis of the patentability of the invention.

12. Claims 50-52 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 50 recites “assigning configuration management codes to various aspects of the aircraft” which renders the claim vague and indefinite. It is unknown what constitutes an “aspect of the aircraft.” Clearly the dictionary definition of “aspect” is insufficient. Applicants are respectfully requested to provide specific citation of portions of the specification that define this claim language.

Claim 50 recites “assigning worker codes which include the configuration management code of the aspect on which the worker works in designing the aircraft” which renders the claim vague and indefinite. It is unclear to what the worker codes are assigned. It appears that the word “assigning” should be replaced with “generating,” “creating,” or some equivalent.

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13. Claim 55 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 55 recites “gathering for each of a plurality of elements comprises gathering only for elements which are handled by personnel from a plurality of different departments” which renders the claim vague and indefinite. Does this language mean “gathering only for elements which are handled by [certain personnel who happen to belong to multiple departments]” or does it mean “gathering only for elements which are handled by a plurality of personnel, each personnel belonging to a different department”? In other words, does this claim require that each personnel belongs to a plurality of different departments?

14. Claim 59 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 59 recites “wherein gathering for each of a plurality of elements comprises gathering for fewer than 10% of the physical elements of the vehicle” which renders the claim vague and indefinite. It is impossible to resolve the several conflicting definitions of “elements of the vehicle” in this application, that phrase itself being vague and indefinite. Further, this language presents a broad limitation (“gathering for each of a plurality of elements”) immediately followed by a narrow limitation (“gathering for fewer than 10% of the physical elements of the vehicle”) which is vague and indefinite. As “physical elements of the vehicle” is

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vague and indefinite for reasons stated above, it is similarly vague and indefinite what is meant by “fewer than 10% of the physical elements of the vehicle.”

15. Claim 70 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 70 recites “while changes to the database are allowed only to specific workers responsible for changing the database” which renders the claim vague and indefinite. Does this limitation mean, as it literally states, that “changes to the database *are open to viewing* only to specific workers responsible for changing the database” or does it mean that “*changing the database* is only performed by specific workers responsible for changing the database”?

16. Claim 71 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 71 is a use claim and does not define the invention. See MPEP 2173.05(q).

17. Claims 72-74 and 41-42 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 72 recites “contacting a worker in charge of the element based on information found in the search,” but the database contains “gathered information” “including an indication

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of the relative assembly of the element in the vehicle.” It is unclear how this gathered information makes the concluding step, “contacting a worker in charge of the element based on information found in the search [of the database]” possible. In contrast, if the “gathered information” included “an indication of the worker in charge of the element,” the step of contacting would flow logically from the presence of that information. Compare to claim 32. It is unclear how to interpret the step of “contacting” because it is unknown how the “information found in the search” is related, if at all, to “contacting a worker.”

18. Claim 74 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 74 recites “wherein selecting the major elements comprises selecting fewer than 1% of the physical elements of the vehicle” which renders the claim vague and indefinite. See the rejection of claim 59 above.

19. Claim 75 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 75 recites “while changes to the index are allowed only to specific workers responsible for changing the index” which renders the claim vague and indefinite. Does this limitation mean, as it literally states, that “changes to the index *are open to viewing* only to

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specific workers responsible for changing the index” or does it mean that “*changing the index* is only performed by specific workers responsible for changing the index”?

20. Claim 77 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 77 recites “such that the gathered information does not include sufficient information for at least some of the design tasks of the vehicle performed using the computerized tools” which renders the claim vague and indefinite. Please see the rejection of claim 32 above regarding this language.

21. Claim 78 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 78 attempts to claim “an aircraft system,” the meaning of which is unknown especially in the context of the recited limitations. These limitations are “an aircraft” and “a database.” What is the relationship between these recited components? What is the meaning of “system” where the only recited elements have no apparent relationship or interconnection?

Claim 78 recites “a database identifying the major elements of the aircraft with codes assigned according to the method of claim 45” which renders the statutory category of invention for claim 78 unknown. As indicated above, it is unclear what is meant by “system” in claim 78. The “system” of claim 78 apparently depends from the method of claim 45 and therefore

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incorporates all of the limitations of claim 45. Should claim 78 therefore be interpreted as claiming a method?

Claim 78 recites “the major elements of the aircraft” which renders the claim vague and indefinite. This language has been repeatedly rejected throughout the prosecution of this application. This language has been amended where it appears in other claims (claims 45, 72, etc.) The Examiner respectfully submits that where a particular phrase in the claim language is indefinite in one claim, it stands to reason that the same phrase is very likely indefinite in other claim. In the interest of expeditious prosecution, the Examiner respectfully requests that when amending a particular phrase in the claims, Applicants look to all of the claims to determine if it would be appropriate to amend that phrase wherever it appears.

22. Claim 80 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 80 is a use claim and does not define the invention. See MPEP 2173.05(q).

23. Claim 81 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 81 recites “wherein gathering only information which is not restricted” which lacks antecedent basis. Claim 81 recites “gathering general information on elements having some details restricted from viewing by the workers of the at least one group” which renders the

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claim vague and indefinite. The phrase “at least one group” lacks antecedent basis. The phrase “general information” is vague and indefinite. It is unclear if this language means “gathering general information for all elements that have some details restricted” or if it means “gathering general information, which has some details restricted, on elements.” It is likely that there are additional issues present in this claim which cannot be reasonably identified at present.

24. Claims 82-85 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 82 recites “a method of designing a vehicle” but the recited limitations do not “design a vehicle.” Therefore it is unknown how to interpret the preamble of the claim. It is unknown whether the prior art must teach “designing a vehicle” where the recited limitations do not “design a vehicle.”

Claim 82 recites “providing computerized tools suitable for performing respective design tasks of the vehicle” which renders the claim vague and indefinite. It is unknown how to distinguish a computerized tool based on whether it is “suitable for performing specific design tasks of the vehicle.” See the rejection of claim 32 above.

Claim 82 recites “designing the vehicle by workers using the computerized tools” which renders the claim vague and indefinite. This language attempts to define the method in terms of who performs the method, not the steps of the method. This language does not define the method. See the rejection of claim 32 above.

Claim 82 recites “generating a database including information on the relationship between elements of the vehicle, but including information on fewer than all the elements of the vehicle” which renders the claim vague and indefinite. Neither the claim nor the specification provide a clear and specific definition of the term “elements of the vehicle.” It is unknown what constitutes an “element of the vehicle” and it is therefore unknown how to determine whether the prior art teaches “information on fewer than all the elements of the vehicle.”

Claim 82 recites “contemplating, by one of the workers, to change an element of the vehicle” which renders the claim vague and indefinite. In addition to attempting to define the method in terms of who performs it, which is clearly improper, this is literally a mental step. This step is vague, abstract, and indefinite. What is meant by “considering”? Is this term equivalent to “pondering”? What would be required in the prior art to teach “contemplating”?

Claim 82 recites “contacting workers in charge of the elements determined to be affected by the change, to discuss the contemplated change” which renders the claim vague and indefinite. This is apparently a step of communicating with coworkers. See the rejection of claim 32 above. What is required in the prior art to rise to the level of “discuss[ing] the contemplated change”? Would Applicants contend that this language distinguishes between “casually mentioning the contemplated change” and “holding a staff meeting to discuss the contemplated change”?

25. Claim 83 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 83 recites “wherein generating the database comprises generating a database including less than 10% of the elements” which renders the claim vague and indefinite. See the rejection of claim 59 above.

26. Claim 84 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 84 recites “generating a database not including sufficient information to allow performing all design tasks of the vehicle” which renders the claim vague and indefinite. See the rejection of claim 32 above.

Claims rejected but not specifically mentioned stand rejected by virtue of their dependence.

In general, the claim language is replete with errors, indefinite language, vague concepts, and mental steps. When this type of claim language is found throughout the independent claims, it precludes a proper analysis of the prior art because it is unknown what Applicants have invented and are seeking to claim. While vague, indefinite language may be sufficient to teach an abstract idea, this language does not comply with 35 U.S.C. § 112, second paragraph, and does not adequately claim the invention for patenting purposes. 35 U.S.C. § 112 requires that the claim language present a clear and definite boundary of what Applicants seek to patent. Where a “grey area” exists and it is therefore uncertain where the boundary of Applicants’ claimed

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invention lies, this definition fails to comply with 35 U.S.C. § 112, second paragraph, and will be rejected as unpatentable.

Applicants are reminded of the requirements of 37 CFR 1.111(b) and (c) when preparing a response to this action. 37 CFR 1.111(b) states:

In order to be entitled to reconsideration or further examination, the applicant or patent owner must reply to the Office action. The reply by the applicant or patent owner must be reduced to a writing which distinctly and specifically points out the supposed errors in the examiner's action and must reply to every ground of objection and rejection in the prior Office action. The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. If the reply is with respect to an application, a request may be made that objections or requirements as to form not necessary to further consideration of the claims be held in abeyance until allowable subject matter is indicated. The applicant's or patent owner's reply must appear throughout to be a bona fide attempt to advance the application or the reexamination proceeding to final action. A general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section.

37 CFR 1.111(c) states:

In amending in reply to a rejection of claims in an application or patent under reexamination, the applicant or patent owner must clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. The applicant or patent owner must also show how the amendments avoid such references or objections.

A response that neglects to address every ground of objection and rejection in the present Office Action will not be regarded as a complete response.

Claim Interpretation

MPEP 2143.03 states:

A claim limitation which is considered indefinite cannot be disregarded. If a claim is subject to more than one interpretation, at least one of which would render the claim unpatentable over the prior art, the examiner should reject the claim as indefinite under 35 U.S.C. 112, second paragraph (see MPEP § 706.03(d)) and should reject the claim over the prior art based on the interpretation of the claim that renders the prior art applicable. *Ex parte Ionescu*, 222 USPQ 537 (Bd. Pat. App. & Inter. 1984) (Claims on appeal were rejected on indefiniteness grounds only; the rejection was reversed and the case remanded to the examiner for consideration of pertinent prior art.). Compare *In re Wilson*, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970) (if no reasonably definite meaning can be ascribed to certain claim language, the claim is indefinite, not obvious) and *In re Steele*, 305 F.2d 859, 134 USPQ 292 (CCPA 1962) (it is improper to

rely on speculative assumptions regarding the meaning of a claim and then base a rejection under 35 U.S.C. 103 on these assumptions).

The claims in this application are subject to numerous rejections under 35 U.S.C. §§ 101 and 112, shown above. The definite metes and bounds of Applicants' invention cannot be ascertained. It is improper to rely on speculative assumptions and then base a rejection under 35 U.S.C. § 103 on these assumptions.

The state of the pending claims in this application preclude a proper analysis for novelty and non-obviousness under 35 U.S.C. §§ 102 or 103. In the interest of compact prosecution, the Examiner provides a brief description of what appears to be the most relevant prior art. Applicants' are reminded of the requirements of 37 CFR 1.111(c) which states "the applicant or patent owner must clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made." This requirement applies to **references cited**, not merely to references applied in rejections under 35 U.S.C. §§ 102 or 103.

US Patent No. 5,646,862 to Jolliffe discloses a vehicle design index (column 1, lines 6-10; column 2, lines 23-53), comprising: gathering by a computer from a plurality of computerized tools, information on physical components of a vehicle [*"central repository to store all design, analysis and library information"*, (column 3, lines 7-20); *"CAE tools include, by way of example, wiring CAD 18, schematic capture 20, etc."* (column 4, lines 10-23)]; wherein the gathering includes retrieving from at least one of the computerized tools fewer than all the elements of the vehicle described by the tool [*"Common data in the design is stored once,*

and updated as needed by the different CAE tools 18-40." (column 4, lines 28-33) Note that data is updated *as needed*.]; and storing the information in the index (column 4, lines 24-34).

US Patent No. 5,634,055 to Barnewall teaches a method of referencing workers working on an aircraft (column 2, line 64 – column 3, lines 13) comprising: assigning identification codes to various aspects of the aircraft (column 2, line 64 – column 3, lines 13); assigning a part number code which includes the assigned configuration management code of the aspect to which the part belongs (column 2, line 64 – column 3, lines 13); and assigning worker codes which include the identification code of the aspect on which the worker works (column 2, line 64 – column 3, lines 13).

US Patent No. 6,314,422 to Barker teaches linking between information relating to vehicle wiring, parts, and manuals using hyperlinks (column 3, line 39 – column 4, line 9; column 7, line 27-42). It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to combine the document linking mechanism of Barker with the vehicle design index of Jolliffe in order to make use of commercial, off-the-shelf technology when providing information relating to the system under design. The combination could be achieved by storing the link in the database of Jolliffe (column 2, lines 36-40) and delivering it to the user when translating data to and from the database (column 5, line 56 – column 6, line 3).

US Patent No. 5,008,853 to Bly teaches a multi-user collaborative system where at least some information is restricted from viewing by at least one group of workers (abstract). It would

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have been obvious to a person of ordinary skill in the art at the time of applicant's invention to include the access restriction feature of Bly when designing a vehicle design index to facilitate the inclusion of information restricted from viewing by at least one group of workers by embracing the viewing restrictions within the vehicle design index itself. The combination could be achieved by means of user authentication and providing requested information only when the authenticated user is not restricted from viewing the requested information.

All of the above references have been previously made of record in this prosecution.

When pointing out the patentable novelty the claims present in light of the state of the art disclosed by the references cited above, the Examiner respectfully recommends considering the guidelines presented in MPEP 2144-2144.09. Distinctions such as "elimination of a step or element and its function" or "changes in size" are typically unpersuasive.

Response to Arguments

In response to the previous Office Action, Applicants submit:

Claims 32, 45, and 72 were objected for including the requirement "selecting [less than 10%, less than 1%, fewer than all] of the physical elements of the vehicle".

Applicant respectfully traverses the rejection and states that the selecting is discussed on page 9, lines 28-33 and rules governing the selection appear on page 12, lines 22-26.

These portions of the specification state:

Optionally, during the preliminary design a project manager initiates rules which determine which elements are considered major elements for the specific project and which elements are considered minor elements. According to these rules the information on the major elements is entered to the database. At a later time, minor elements which turn into major elements may optionally be entered into the database. Similarly, elements may be removed from the database if they are altogether unnecessary or if they become minor elements. (page 9, lines 28-33)

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The term major element refers herein to any major assembly, part, or structure which is important enough to be included in database 20. Such major elements are optionally elements which interact with other elements of the aircraft. Alternatively or additionally, the major elements are elements which appear on assembly maps and/or wire diagrams. Further alternatively or additionally, the major elements are those elements which are handled by a plurality of personnel from different departments. (page 12, lines 22-26)

In light of the specification, there appears to be no reasonable definition for “major elements” as used in the claims except those elements which “are considered major elements for the specific project [by a project manager]” and implicitly those elements which are in the database. The specification clearly teaches that “elements may be removed from the database if they are altogether unnecessary or if they become minor elements.” Therefore, when looking to the prior art, there is no reasonable interpretation but to conclude that elements which are found in the database were considered [by a project manager] to be major elements, and further are defined to be major elements since they are in the database.

The specification further states that “the term major element refers herein to any major assembly, part, or structure which is important enough to be included in database 20.” This teaching further supports the Examiner’s interpretation. When looking to the prior art, elements which are in a database are “major elements” as defined by Applicants’ specification. The examples of “major elements” provide no further clarification regarding what is specifically meant by the term “major element”.

The Examiner anticipates that Applicants do not intend for the term “major element” in the claims to mean “element in a database” because this interpretation disrupts the meaning of nearly every claim in the application. Unfortunately this interpretation is specifically called for by the specification. Clarification is requested.

Response to 35 U.S.C. § 101 Rejections

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In response to the previous rejections of claims 45-49 and 78 under 35 U.S.C. § 101, Applicants submit that:

Applicant respectfully submits that the Examiner has not established a *prima facie* case that the claimed invention is non-statutory. **The Examiner's discussion relates to a broad interpretation of the claim (which does not offend section 101) and not to the rejection based on the claim being non-statutory.** Retraction of the rejection is respectfully requested. Applicants notes that claim 45 was amended to specifically state how the major elements are selected and thus prevents the broad interpretation given by the Examiner and forwards the claim towards allowance. (emphasis added)

The Examiner respectfully traverses this argument as follows.

These claims were rejected under 35 U.S.C. § 101. In response, Applicants submitted:

Applicant respectfully requests that if the Examiner does not retract the rejection, the Examiner provide a basis in the MPEP or case law for the rejection. (Applicants' response, 3 March 2005, page 10)

The subsequent Office Action carefully explained the claim interpretation as supported by the MPEP. (Office Action of 13 September 2005, pages 3-5).

Applicants' argument that the "discussion relates to a broad interpretation of the claim" is not understood by the Examiner.

MPEP 2111 states:

During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000).

MPEP 2106 states:

The claims define the property rights provided by a patent, and thus require careful scrutiny. The goal of claim analysis is to identify the boundaries of the protection sought by the applicant and to understand how the claims relate to and define what the applicant has indicated is the invention. **Office personnel must first determine the scope of a claim by thoroughly analyzing the language of the claim before determining if the claim complies with each statutory requirement for patentability.** See *In re Hiniker Co.*, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998) ("[T]he name of the game is the claim.").

Applicants' argument appears to suggest that the Examiner erred in complying with MPEP 2111 and 2106 by giving the claims what is admitted by Applicants to be "a broad interpretation of the

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claim.” Applicants have not specifically pointed out where that interpretation was in error. In fact, Applicants have amended claim 45 in response to that interpretation.

Applicants’ arguments have been fully considered but have been found unpersuasive. These claims stand rejected under 35 U.S.C. § 101 for the reasons set forth above.

Response to 35 U.S.C. § 112 Rejections

In response to the previous rejections of claims 32-49, 53-74 and 78 under 35 U.S.C. § 112, first paragraph, as lacking enablement for selecting fewer than all the physical elements of the vehicle, etc., these rejections are withdrawn in light of the amendments to claim 32.

Applicants’ arguments regarding the rejection of claim 27 for the use of the term “substantially” is acknowledged. The Examiner thanks Applicants for quotation of the paragraph of the MPEP referenced in Applicants’ argument. The Examiner respectfully suggests consideration of MPEP 2173.05(b)(F) which provides examples wherein the term “substantially” was held to be indefinite.

It is noted that claim 23 as currently pending does not recite the term “substantially,” and therefore the previous rejection has been withdrawn.

Response to 35 U.S.C. §§ 102 and 103 Rejections

The previous rejections under 35 U.S.C. §§ 102 and 103 have been withdrawn not because the claimed invention is deemed patentable over the prior art but specifically because the numerous difficulties under 35 U.S.C. §§ 101 and 112 render a prior art analysis inappropriate.

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Nevertheless, the Examiner has attempted to respond to Applicants' arguments in the interest of compact prosecution and to assist Applicants when drafting their response.

Applicants submit that:

None of the references cited suggests collecting only information not restricted for viewing in an environment including restricted information. The Examiner admittedly has not met the third requirement, as none of the cited references teaches or suggests the limitation added to claim 23. In the rejection of claim 27, the Examiner only stated that it would be obvious to gather only the information which is not restricted from viewing by any of the workers. Such a merely conclusatory [sic] statement is not sufficient to establish a *prima facie* rejection.

The Examiner respectfully traverses this argument as follows.

Applicants' argument is that it would not be obvious to leave restricted information out of an insecure database. The Examiner has stated previously and maintains that it would have been obvious to a person of ordinary skill in the art at the time of Applicants' invention to omit restricted information from public access through a database.

Applicants submit that:

Claim 72 requires selecting fewer than 10% of the physical elements of the vehicle and gathering information regarding the selected elements and storing the gathered information in a database, having records only for the major elements.

The Examiner totally ignored the requirement of selecting fewer than 10% of the physical elements and has not shown any reference to a reference [sic] that creates a vehicle database with records for less than 10% of the elements.

The Examiner respectfully traverses this argument as follows.

The claim terminology "physical elements" is vague and indefinite. Applicants' arguments shed no light on what does or does not meet the definition of "physical elements." It is noted that an aircraft may contain millions of rivets, each of which are physical elements. The

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Examiner does not understand Jolliffe to teach selecting rivets to be stored in the database. Jolliffe therefore stores fewer than 10% of the physical elements in the database.

In general, Applicants' arguments are directed to a narrow interpretation of the claims. These arguments are unpersuasive because a particular narrow interpretation of the claims is improper for patent prosecution. Applicants' are respectfully advised to consider the broadest reasonable interpretation of the claims (see MPEP 2111-2111.04) in order to promote compact prosecution.

When at least the independent claims present definite metes and bounds to define the invention, an analysis of the prior art will be feasible and the issues of novelty and non-obviousness can be addressed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.


Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR)

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system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Paul P. Rodriguez 4/17/02
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